

In the Specification: ✓

Please add the following Claim for Priority after the Title of the Invention:

a1 This application claims the benefit of U.S. Provisional Application No. 60/260,595, filed January 9, 2001.

Replace the paragraph beginning on page 2, line 9 with the following:

a2 The magnitude of the switch state problem can be estimated as follows. The size of the path table in a typical switch in a connection-oriented network would be  $M$ , where  $M$  is the mean number of connections passing through that switch, which may be thought of as the density of connections.  $M$  would be limited to approximately 10,000, for efficiency and performance. In IP, the number of routes depends on the total number of nodes  $N$  in the network, rather than a similar notion of node density, but unlike virtual path indices, IP addresses are interpreted in the course of routing. For example, had the IP (version 4) address space been perfectly aggregated, the entire IP route table would have been simply a distributed binary tree, and the routing decision could have been reduced to 1 bit per router, for a table size of 2 entries and total depth of 32 levels. In reality, IP address assignments have been far from perfect: the initial partitioning of the address space in terms of classes allowed for route table size of 256 entries, corresponding to  $(2^{\log N})^{1/4} = N^{1/4}$ , at the bottom level (class A) and  $256^2 = 65536$  at the middle level (class B). Even with Classless Inter-Domain Routing (CIDR), perfect aggregation cannot be ensured, as noted in the Internet Engineering Task Force (IETF) Request for Comments document RFC2775. There is however, a need for a comparable reduction of switch state volume before connection-oriented networking can become usable on the Internet scale.